REMARKS

The Claimed Invention

The claimed invention is directed to methods for modifying fiber phenotype in a cotton plant, together with DNA sequences and constructs for use in the method and plant cells and plants produced using the method.

The Pending Claims

Prior to entry of the above amendments, Claims 1-27 are pending and rejected. Claims 1-5, and 7-8 are directed to DNA sequences; 9-10 to DNA constructs; 12 to a plant cell; 13 to a plant; and 14-27 to a method of modifying fiber phenotype of a cotton plant.

The Office Action

Claims 23-26 are objected to because they do not comply with 37 CFR 1.821(d), which requires that sequences be identified by SEQ ID NO.

Claims 1-27 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9, 11-26 and 28-37 of copending Application No. 08/480,178.

Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, written description.

Claims 1-13 are rejected under 35 USC 112, first paragraph for lack of enablement.

Claim 27 is rejected under 35 U.S.C. 112, first paragraph, for lack of enablement. Claims 1-22 and 25-27 are rejected under 35 U.S.C. 112, second paragraph.

Claims 14-18 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benfey *et al.* in view of John, Mol *et al.*, Hart *et al.*, Deeley *et al.*, Klein *et al.*, Vandekerckhove *et al.* and Link.

Amendments

The amendments on pages 3-4 are made to rectify typographical errors.

The amendments on page 5, lines 4-7 are to make the subjects of the phrases clear and agree with the verbs.

B

The amendments from page 5 line 9 through page 8 are made to rectify typographical errors.

The amendments at page 9 lines 10-19 is to insert the corresponding SEQ ID NO. Support for designations are found by matching the computer readable form of sequence listing mailed on Septembere 3, 1999 and the corresponding sequences in Figures 1-5.

The amendment at page 9 line 14 is to correct the typographical error in the designation of the genomic clone as 4-4 (6), rather than 4-4-6. Support for the use of the parentheses is found, for example, at: page 34, lines 20 and 22; page 35, lines 6 and 27; and page 36, line 16.

The amendments at page 9, after line 21 are to insert the inadvertently omitted brief description of the drawings for Figures 7-13, as requested by the Examiner. Support for these descriptions is found at page 9, lines 1 through 20 of PCT/US96/09897 (WO 96/40924) filed June 7, 1996 to which this application claims priority (see preliminary amendment filed May 12, 1998). The PCT application was published December 19, 1996, which is prior to the date of filing of the instant application. Figures 7-13 of the PCT application are identical to Figures 7-13 of the instant application. A typographical error that appears in the description of Figure 8 has been corrected, namely the reference to construct pCGN5148; as is clear from the Figure itself, the construct is pCGN5149.

The amendments from page 12 line 24 through page 40, line 14 are made to rectify typographical errors.

The amendments at page 30 line 17, page 31 lines 7 and 26, page 34 line 6, page 34 line 19, page 38 line 7 are to insert the corresponding SEQ ID NO. Support for designations are found by matching the computer readable form of sequence listing mailed on Septembere 3, 1999 and the corresponding sequences in Figures 1-5.

The amendment at page 40, line 15 is to specify the name of the component, rather than use the abbreviation found in the original application. Support for this amendment is found at page 40, line8.

The amendments on page 40 are made to correct the inconsistency in designation of the parameter of light measurement. Support for this amendment is found at page 40, line 23.

The amendment on page 40, line 27 is to clarify the unit of temperature. Support for this amendment is found at page 41, lines 1-4.

Claim 1 is amended to clearly define the transcriptional factors that are claimed. Support for these amendments is found, for example, at: page 2, line 8; page 3, lines 9-12; page 12 lines 2-3 and 9-19; page 15, line 3; and page 41, lines 18-23; and Claim 10, as originally filed.

Claim 3 is amended to correct a typographical error, as suggested by the Examiner.

Claim 4 is amended to correct the lack of antecedent basis. Support for this amendment is found, for example, at page 18 lines 22-27. This similar to Claim 2, information for which is found, for example, at page 17 lines 9-14.

Claim 6 is cancelled.

Claims 7 and 8 are amended to correct for the improper recitation of "said bacterial" in Claim 8 which continues "gene is selected from the group consisting of ORF438, *tyr*A, anthocyanin R gene, anthocyanin C1 gene, *pig*, and *tna*", since anthocyanin R and anthocyanin C1 genes are plant genes. Support for these amendments is found, for example, at page 20 lines 17-19.

Claim 11 is cancelled.

Claim 14 is amended to recite DNA constructs according to Claim 9 or 10.

Claims 15 and 16 are amended to correct for the confusion produced by not stating that it is the DNA construct, not the DNA sequence, which further comprises the items in the claim. Support for these amendments is found, for example, at page 17, lines 9-27.

Claim 17 is cancelled.

Claim 18 is amended delete the recitation of "components i) through iv)."

Claim 20 is amended to clarify the fact that *tna* and *pig* refer to genes which encode for proteins, rather than the proteins themselves. Support for these amendments is found, for example on page 16, lines 16-20 and Figure 8.

Claim 21 is amended to correct a clerical error by providing language that properly describes the genes recited. Support for these amendments is found, for example, on page 20, lines 17-21. Claim 21 is also amended to correct a typographical error. Support for this amendment is found in the instant claim as filed and, for example, on page 20, line 18.

Claim 22 is amended to clarify the antecedent basis of in the recitation of "plant tissue is a cotton burr." This is in conjunction with one of the amendments to Claim 14. Support for these amendments is found, for example on page 16, lines 16-20 and Figure 8.

Claims 5, 23, 25 and 26 are amended to refer to the relevant SEQ ID NO's. Claims 25 and 26 additionally are amended to clarify that the sequence to which the claim refers to is the one shown in the referenced SEQ ID NO.

Claim 27 is amended to clarify that the protein of interest in a biosynthetic or degradation pathway of an enzyme is a pigment pathway. Support for this amendment is found, for example, on page 15, lines 16-17.

Support for new claims 30-56 is found in Claims 1-13 as filed and renumbered by the Examiner.

No amendments have been made to overcome art based rejections. No new matter has been added by the above amendments and the Examiner is respectfully requested to enter them.

Response

The Examiner's specific objections and rejections are reiterated below as small indented bold print, followed by Applicant's response in normal print.

The application was filed with no claim 12 or 24. The claims have been renumbered in accordance with 37 CFR 1.75(f).

Applicants have noted the change in claim numbering.

The specification is objected to because it does not include a brief description of the drawings for Figures 7-13.

This objection is avoided by the insertion of a brief description of the drawings for Figures 7-13 (page 9 of the application as filed).

This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825 for the reason(s) set forth on the attached Notice to Comply With Requirements for Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures.

Applicants must comply with the sequence rules in order to effect a complete response to this Office action.

This objection is avoided by submission herewith of a Sequence Listing, both in a paper copy and in a Computer Readable form and a Verified Statement under 37 CFR1.821-1.825.

B

The application should be checked for errors, such as "peptid" in claim 3.

This objection has been avoided by the amendments to the specification and to the claims which correct typographical and grammatical errors.

Objections

Claims 23-26 are objected to because they do not comply with 37 CFR 1.821(d), which requires that sequences be identified by SEQ ID No. Appropriate correction is required.

This objection is avoided by the amendments found in Claims 23 – 26 to add the requested SEQ ID NO's.

Judicially Created Doctrine of Obviousness-Type Double Patenting

Claims 1-27 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9, 11-26 and 28-37 of copending Application No. 08/480,178. Although the conflicting claims are not identical, they are not patentably distinct from each other because the two sets of claims are drawn to nearly identical compositions and methods which are obvious variants.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicants defer responding to this provisional rejection until such time as there is an indication of otherwise allowable subject matter.

35 U.S.C. § 112, first paragraph

Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants are referred to the interim guidelines on written description published June 15, 1998 in the Federal Register at Volume 63, Number 114, pp. 32639-32645 (also available at www.uspto.gov).

The claims are drawn to DNA sequences comprising any "4-4" or "rac" promoter sequence. However, the specification only discloses 4-4 and rac sequences isolated from cotton. In analyzing whether the written description requirement is met for genus claims, it is first determined whether a representative number of species have been described by their complete structure. In this case, the sequences provided in Figures 2 and 5 are the only species whose complete structure is disclosed. Next, then, it is determined whether a

representative number of species have been sufficiently described by other relevant identifying characteristics (i.e. other than nucleotide sequence). In this case, the specification does not even define what a "rac" or "4-4" promoter is, much less provide identifying characteristics of the promoters from other species. In particular, no tomato sequences as claimed in claim 11 are disclosed. This limited information is not deemed sufficient to reasonably convey to one skilled in the art that Applicants were in possession of promoters besides those shown in Figures 2 and 5 at the time the application was filed. Thus it is concluded that the written description requirement is not satisfied for the claimed genus.

Claims 6 and 11 have been cancelled. As to the remaining claims, the rejection of these claims on the basis that the written description requirement is not met is respectfully traversed because the Guidelines cited by the Examiner not only have not been adopted, but do not follow case law which would take precedence over any Guidelines promulgated by the Solicitor's Office.

Claims 1-5, 7-10 and 12-13 are originally filed claims. *In re Koller*, 204 USPQ2d (CCPA 1977) which is binding precedent on the Federal Circuit (*South Corp v United States* 215 USPQ 657 (Fed. Cir. 1982, in banc)) and not expressly overruled by any of the cases cited by the Guidelines, held that "original claims constitute their own description" therefore the Examiner errs in rejecting Claims 1-13 for failure to comply with the written description requirement. This original claim doctrine also has been applied the Board of Patent Appeals and Interferences. *See* Ex parte Porter, 25 USPQ2d 1144, 1146 (BPAI, 1992).

The claims have been amended in response to the 35 U.S.C. 112, 1st paragraph enablement rejection (*see* below) so as to maintain compliance with the written description requirement as set forth in *University of California v Eli Lilly and Co* 43 USPQ2d 1398 (Fed. Cir. 1997). In particular, the court noted that "A description of a genus of cDNAs may be achieved by means of a recitation of a representative number of cDNAs, defined by nucleotide sequence, falling within the scope of the genus or of a recitation of structural features common to the members of the genus, which features constitute a substantial portion of the genus". *Eli Lilly, supra*, at 1406. Accordingly, Applicants have defined the structural features common to the transcriptional factors that come within the claim by reciting the method by which they are obtained, which requires commonality of structural features and thus serves to distinguish members of this genus

B

from nonmembers of the genus. The transcriptional factors thus are described, not only by function (functional in a cotton fiber cell), but also by the fact that they are 4-4 or *rac* promoter sequences that are obtained from genomic DNA derived from a plant fiber tissue that specifically hybridize to one of the recited sequences that is provided in the specification. This additional information, added to address the enablement rejection, does not change the written description present in the claims as filed.

The Examiner is respectfully requested to withdraw the written description rejection of Claims 1-13.

Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for SEQ ID Nos. 2 and 5, does not reasonably provide enablement for all "rac" and "4-4" promoters. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

As noted below in the rejection under § 112, second paragraph, it is not clear what is encompassed by the claims. Applicants may intend to claim only SEQ ID Nos. 2 and 5, but potentially hundreds or thousands of other promoter sequences are encompassed by the claims. For example, the rac coding sequences are similar to sequences found in animals. Do the claims encompass animal rac sequences? The specification also indicates that the disclosed rac sequence is closely related to a Rho1 cDNA from pea. Does this mean that Rho1 is a rac gene? If these other promoters are intended to be encompassed by the claims, the specification has not taught how to use them. The specification is directed to modification of cotton fiber phenotype. Based on the disclosure, there is no reason to believe that animal rac or pea Rho1 promoters would be useful for this purpose. Similarly, the specification provides no indication that other plants (or even animals) possess 4-4 genes, let alone that the corresponding promoters would direct tissue-specific gene expression in cotton fibers. With regard to claim 11, the specification does not disclose in what tissues a tomato rac or 4-4 promoter would be expressed.

The specification does not adequately teach how to make the claimed promoters, other than SEQ ID Nos. 2 and 5. One might define a rac or 4-4 promoter as a promoter which directs cotton fiber-specific gene expression. If this functional definition is used, then the specification does not disclose what portions of the promoter sequences provide this function. Thus if one skilled in the art wished to construct a 4-4 promoter "from scratch" he would not know what sequences to include. The specification alleges that other promoter sequences can be isolated by hybridization (p. 26). However, hybridization conditions are not specified. Under low stringency conditions, many unrelated sequences will hybridize. It also is not clear what was used as the probe - the promoter sequence itself, the cDNA, the entire genomic sequence? The specification indicates that 7 additional clones were isolated, but does not state from what species they were isolated. The specification does not indicate whether Applicants were isolating promoters from different species, or simply isolating additional clones from the same cotton library.

For the reasons discussed above, the specification does not adequately teach how to make and use all of the promoter sequences potentially encompassed by the claims. This is particularly true given the breadth of the claims, the nature of the invention, the scarcity of guidance in the specification and the unpredictable nature of the art.

B

Claims 6 and 11 have been cancelled. As to the remaining claims, this rejection is believed avoided in part by amendment of the claims to add the method by which the transcriptional factors are obtained and is respectfully traversed in part because the enablement requirement of 35 U.S.C. 112, 1st paragraph requires only that Applicants teach one of skill in the art how to make and use the claimed invention and this they have done. A statement of generic operability in the specification must be accepted as accurate in the absence of proof to the contrary. *Wettstein v. Campbell*, 139 USPQ 341, 343 (BPAI 1962). The Examiner has not sustained his burden of proof as to the inoperability of the generic claims because in order to sustain his burden of proof, the Examiner must explain why he doubts the truth or accuracy of any statement in a supporting disclosure and back up his assertions with acceptable evidence or reasoning which is inconsistent with the contested statement. It is insufficient to argue that if animal rac sequences and the pea Rho1 sequence come within the scope of the claims, then there is no reason to believe that they would be useful for modification of cotton fiber phenotype. Furthermore, based upon this last statement, the Examiner appears to have lost sight of the nature of the claimed subject matter: Claims 1-5 and 7-8 are drawn to a DNA sequence, Claims 9-10 to a DNA construct, Claim 12 to a plant cell, and Claim 13 to a plant; none of these claims is directed to a method of modifying cotton fiber phenotype. The language in the claims (as amended) requires only that the transcriptional factor be "functional in a cotton fiber cell".

Applicants have described in detail how to obtain cotton fiber transcriptional factors and have used the procedure described to obtain other sequences. For example, on page 31, beginning at line 8, Applicants describe the use of a Rac13 clone to screen a cotton fiber library and the isolation of one set of clones with identical sequence homology to the Rac13 clone and a second set of clones which were clearly related but distinct in DNA and amino acid sequence from Rac13, which they designated Rac9. Assessment of expression of both 4-4 and Rac13 using mRNA prepared from various cotton tissues and from fibers at different stages of development is described on page 32, beginning at line 18. A description of preparation of the Rac13 probes appears on page

30, lines 15-24 and the sequence of the primers is described with reference to particular bases (600-619 and 843-864) of Figure 4. Probing for genomic clones using the 4-4 and the Rac13 cDNA is described on page 33, beginning at line 15 and preparation of an expression cassette is described beginning on page 34, line 1 with detail as to the nucleotidesthat constitute the open reading frame and the nucleotides that are included from the 5' flanking region (nt 65 to 4163 of the 4-4(6) clone and nt 57 to 4155 of the 4-4 clone). The sequence of approximately 3 kb of a Rac13 promoter construct is provided in Figure 5. Based upon the above information and the general knowledge in the art (such as for example hybridization conditions to use to obtain the desired level of specificity and how to identify the ORF and therefore the 5'flanking region), the skilled artisan can construct probes, isolate clones of interest from plant fiber tissue using the rac and 4-4 cDNA, and screen them for expression, isolate the corresponding genomic DNA and prepare the claimed DNA sequences, constructs, plant cells and plants. Applicants therefore respectfully submit that the specification is enabling for that which is claimed and request that the Examiner withdraw this rejection.

Claim 27 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not teach how to use a protein involved in synthesis of a plant hormone to produce a pigment. There is no working example, and no guidance regarding what protein should be expressed and what pigment would be produced.

This rejection has been avoided by amendment of the claim to correct a clerical error and refer to a plant pigment rather than a plant hormone.

35 U.S.C. § 112, second paragraph.

Claims 1-22 and 25-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically:

Claim 1 is indefinite in its recitation of "the 4-4 and the rac promoter sequences." The specification does not define what is meant by a "4-4 promoter" or a "rac promoter". One skilled in the art might think that this means sequences 5' of the rac or 4-4 coding sequence, but the specification does not define what is considered a "rac" or "4-4" coding sequence. Since the function of the rac and 4-4 coding sequences is not disclosed, one skilled in the art would not know whether another sequence was a rac or 4-4 coding sequence. Thus

the claim and specification fail to clearly set the metes and bounds of the claimed invention. Further adding to the confusion, there is already a bacterial promoter designated "rac."

Claims 6 and 11 have been cancelled. Claims 25 and 26 appear to have been incorrectly included in this rejection because the offending language does not appear in these claims. As to claims 1-5, 7-10, 12-22 and 27 the rejection is believed avoided by amendment of Claim 1 to delete the language objected to by the Examiner. The Examiner is respectfully requested to withdraw the rejection of Claims 1-22 and 25-27.

Claim 6 is indefinite in its recitation of "said pigment," which lacks antecedent basis.

The rejection is avoided by cancellation of Claim 6.

Claim 11 is indefinite and confusing because it is not clear how a promoter can be both a 4-4 and a rac promoter.

The rejection is avoided by cancellation of Claim 11.

Claim 14 is indefinite in its recitation of "said plant tissue," which lacks antecedent basis.

The rejection is avoided by the amendment of Claim 14.

Claim 15 is indefinite and confusing because a method can not comprise a DNA sequence.

The rejection is avoided by the amendment of Claim 14 to clarify the confusing language.

Claims 17 and 18 are indefinite in their recitation of "components i) through iv," which lacks antecedent basis.

The rejection is avoided by amendment of Claims 17 and 18 to remove the recitation "components i) through iv)".

Claim 22 is confusing in its recitation of "plant tissue is a cotton burr." "Said plant tissue" or "the plant tissue" is suggested.

B

The rejection of Claim 22 is avoided by the amendment suggested by the Examiner.

Claims 25 and 26 are indefinite in their recitation of "An isolated...sequence" since in each case only one sequence is disclosed.

The rejection of Claims 25 and 26 are avoided by amendment to clarify that a definite sequence is claimed.

Claim 27 is vague and indefinite in its recitation of "involved in the synthesis of a plant hormone." It is not clear how "involved" a protein must be to be encompassed by the claim. Since cells must be living to produce plant hormones, one might consider any protein required to keep cells alive to be involved in synthesis of the hormone.

The rejection of Claim 27 is avoided by amendment of the Claim to delete the offending phrase.

35 U.S.C. § 103(a)

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a)

Applicants hereby state for the record that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made.

Claims 14-18 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benfey *et al.* in view of John, Mol *et al.*, Hart *et al.*, Deeley *et al.*, Klein *et al.*, Vandekerckhove *et al.* and Link. Benfey *et al.* disclose a method for altering the color of flower petals by expressing an anthocyanin synthesis gene under control of a petal-specific promoter (pp. 853-855). It is not clear whether the DNA construct of Benfey *et al.* contained a sequence encoding a transport signal. Benfey *et al.* do not disclose a method for altering the color of cotton fibers. John discloses several promoter sequences which cause transcription in cotton fibers. John teaches that alteration of cotton fiber quality is one of the most important benefits to be achieved from genetically engineering cotton (col. 2). Mol *et al.* suggest producing blue flowers by expression of bacterial genes encoding indigo synthesis (p. 292, col. 2). Hart *et al.* teach that the *pig* gene of *Rhodococcus* produces indigo from indole, which is synthesized from tryptophan (entire document). Deeley *et al.* disclose the sequence of the *E. coli* tryptophanase gene, *tna*. Klein *et al.* teach that the R and C1 genes control anthocyanin synthesis. Vandekerckhove *et al.* teach that a signal sequence is

B

required for transport of an elongating peptide chain into the endoplasmic reticulum (col. 3, lines 17-21) and disclose a signal sequence for this purpose (col. 18, lines 61-63). Link teaches that there is a high demand for cotton which is colored "naturally," i.e. without the use of dye, but that traditional breeding methods do not consistently produce the color and fiber quality desired (entire document).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Benfey *et al.* by using a cotton fiber-specific promoter of John to express pigment synthesis genes as taught by Mol *et al.*, Hart *et al.*, and Deeley *et al.*, or Klein *et al.* It would have been obvious to use the signal sequence of Vandekerckhove *et al.* to target the expressed proteins to the endoplasmic reticulum. It would have been obvious to use the *pig* gene of Hart *et al.*, since it was shown to produce indigo when transferred into a different organism, and it would have been obvious to co-express the *tna* gene of Deeley *et al.* to increase the supply of substrate for indigo synthesis. It would have been equally obvious to use the maize anthocyanin synthesis genes taught by Klein *et al.* There would have been a reasonable expectation of success, since plant and bacterial genes are routinely expressed in plant tissues, and given the demonstrated success of Benfey *et al.* in altering flower petal color. The skilled artisan would have been motivated to produce naturally colored cotton, given the recognized demand for such a product and the premium price obtainable in the marketplace, as discussed by Link. Thus, the invention as a whole was clearly *prima facie* obvious to one of ordinary skill in the art at the time the invention was made

The rejection is respectfully traversed because this application is subject to the provisions of 35 U.S.C. 103(b). This application was filed on December 3, 1997. On November 1, 1995, Public Law 104-41 (35 U.S.C. 103(b)) was signed into law. This law applies to then pending applications as well as to later filed applications. Section 103(b) provides:

> (b)(1) Notwithstanding subsection (a), and upon timely election by the applicant for patent to proceed under this subsection, a "biotechnological process" using or resulting in a composition of matter that is novel under section 102 and nonobvious under subsection (a) of this section shall be considered nonobvious if-
>
> (A) claims to the process and the composition of matter are contained in either the same application for patent or in separate applications having the same effective filing date; and
> (B) the composition of matter and the process at the time it was invented were owned by the same person or subject to an obligation of assignment to the same person.
>
> ...
>
> (3) For purposes of paragraph (1), the term "biotechnological process" means-
>
> (A) a process of genetically altering or otherwise inducing a single- or multi-celled organism to-...
> (iii) express a specific physiological characteristic not naturally associated with said organism ..."

35 U.S.C. 103(b).

Claims 14-18 and 20-22 are directed to a biological process. Claims 1-5 and 7-8 are directed to compositions (DNA constructs) that are used in the rejected claims; Claims 9-13 are directed to compositions (plant cells and plants) that are the result of the rejected claims. All of the composition claims are novel and unobvious; they are rejected only on other grounds. The composition of matter and the process at the time it was invented were owned by the same person or subject to an obligation of assignment to the same person. All the requirements of 35 U.S.C. 103(b) having been met, the biological process claims are novel and unobvious. Applicants therefore hereby elect to benefit from the provisions of 35 U.S.C. 103(b) and request that the Examiner withdraw his rejection of Claims 14-18 and 20-22.

CONCLUSION

In view of the above amendment and remarks, it is submitted that this application is now ready for allowance. Early notice to that effect is solicited. If in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney at (650) 328-4400.

Respectfully submitted,

Dated: September 22, 1999

Barbara Rae-Venter, Ph.D.
Reg. No. 32,750

Rae-Venter Law Group, P.C.
P.O. Box 60039
Palo Alto, CA 94306-0039
Telephone (650) 328-4400
Facsimile (650) 328-4477

BRV/slb

B